




K.V.G. COLLEGE OF ENGINEERING

Kurunjibhag, Sullia, D.K.-574 327, Karnataka, INDIA
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Department of Electronics and Communication Engineering

FACULTY PROFILE

Name of the Faculty	Dr. KUSUMADHARA S	
Designation	Associate Professor	
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• Educational Qualification

Degree	Specialization	Year of Passing	College & University
B.E	Electrical and Electronics Engineering	1999	KVGCE, Sullia, Mangalore
M. Tech	Digital Electronics and Communication (DE&C)	2006	KVGCE, Sullia, VTU
Ph.D.	Machine Learning	2022	KVGCE, Sullia, VTU

• Work Experience

Teaching	Research	Industry
22 years	7 years	NIL

• Date of Joining to the College

17th April 2000

• In-House Experience

Designation	Duration		Department
	From	To	
Lecturer	17-04-2000	28-02-2007	E & E
Asst. Professor	01-03-2007	31-07-2011	E & E
Asst. Professor	01-08-2011	01-03-2012	E & C
Associate Professor	02-03-2012- Till Date		E & C

• Area of Interest

Pattern Recognition	Machine Learning	Soft Computing	IOT	Automotive Electronics
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• Subject Taught

<ul style="list-style-type: none"> - Machine Learning - Image Processing - Microprocessors - Microcontrollers - Automotive Electronics - Computer Organization - Machine Design 	<ul style="list-style-type: none"> - Network Analysis - Digital Signal Processing - VLSI Circuits and Design - Error Control Coding - Basic Electrical Engineering - Design of VLSI Systems - Logic Design - Electrical Measurements 	<ul style="list-style-type: none"> - Signals and Systems - Field Theory - Arduino Microcontrollers - Power Electronics - Liner ICs and Applications - Analog Electronics Circuits - Control System - Electronic Instrumentation
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• Membership in Professional Bodies/University Bodies/Organizations

Member of Indian Society for Technical Education (MISTE) : LM – LM62152 (2009)

• Publications

National / International Journals	National / International Conferences
03	06

• Publications : National / International Journals

1. Kusumadhara S, Ravikumar M S, Raghavendra P, "A Framework for Grading of White Chali Type Arecanuts with Machine Learning Algorithms", International Journal of Recent Technology and Engineering, ISSN: 2277-3878, Volume-8 Issue-6, pp 2782- 2788, March 2020, doi: 10.35940/ijrte.f8389.038620
2. Kusumadhara S, Ravikumar M S, "Segmentation of White Chali Arecanuts using Soft Computing Methods", International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-9 Issue-7, pp 1049-1055, May 2020, doi: 10.35940/ijitee.g5848.059720
3. Kusumadhara S, et. al, "A Deep Feature Learning Model for Pneumonia Detection Applying a Combination of MRMR Feature Selection and Machine Learning Technique", International Journal of Engineering Research and Applications, Volume-11, Issue 5, pp 61-73. May 2021.

• Publications : National / International Conferences

4. Lossless compression of digital images using base switching method. "National conference on Computer Vision, Pattern Recognition, Image processing and Graphics. NCVPRING - 10", 18-10-2010.
5. Design of shunt active filter using instantaneous reactive power theory "4th National conference on Advances in Energy Conversion Technologies", 2011.
6. A comparative analysis of Error control codes for Image transmission "National conference on Computer Communication and Advanced Computing", 2012.
7. JPEG 2000 image transmission based on PFDM system using unequal power allocation "National conference on emerging exposition", 2013.
8. Efficient routing protocol in MANETS by using Alert. "National conference on emerging trends in electronics and communication", 2013.
9. Design and analysis of an area efficient boostable repeater for variation resilience in VLSI interconnect "National conference on recent trends in electronics and communication", 2014.

• Professional Activities: NPTEL Course

NPTEL (National Program on Technology Enhanced Learning)	Subject	Year of Certification
	1. Teaching and Learning in Engineering (TALE)	Feb 2019 (4weeks. FDP)

STEP-NITK-IEEE Industrial Internship Program	2. IOT with Machine Learning	July 2021 (One month Internship Program)
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• Faculty Development Programmes (FDP) Participated

SL. No.	Program Title	Venue	Date & Year
1.	Faculty Development Program	KVGCE-ISTE chapter	23-06-2001 (Two days)
2.	Trends in Pattern Recognition	Malnad College of Engineering, Hassan	22-04-2006 (One day)
3.	Microcontrollers and HDL Lab	R.N.S. Institute of Technology. Bangalore.	30-01-2018 (Three days)
4.	Opportunities for Sponsored Research and Collaboration with IT Industries	KVGCE	11-12-2009 (One day)

• Workshops / Short-term Course Attended

SL. No.	Workshop Title	Place	Date & Year
1.	Microprocessor Laboratory	Basaveshwar Engineering College, Bagalkot	20-04-2001 (Two days)
2.	System analysis and Digital Signal Processing	NMAM Institute of Technology, Nitte	13-02-2006 (Six days)
3.	Mathematical Tools for Engineering Applications	KVGCE, Sullia	13-05-2006 (One day)
4.	High Impact Teaching Skills (Mission 10X Workshop)	V.C.E.T Puttur, Sponsored by Mission10X, Wipro Technologies Pvt. Ltd.	01-06-2009 (Five days)
5.	ARM Architecture and Applications	N.I.T.K Surathkal.	09-03-2009 (Two days)
6.	Issues in System Analysis: MATLAB as a Computational Tool	N.I.T.K Surathkal.	27-07-2009 (Six days)
7.	MSP430 microcontrollers	Vidya Vikas Institute of Engg. & Technology, Mysore	12-12-2011 (Two days)

8.	Guided and Free Space Optical Communication Systems and Networks	N.I.T.K Surathkal.	16-08-2011 (Five days)
9.	Intellectual Property and Innovation Management in Knowledge Era	K.V.G. College of Engineering, Sullia	12-11-2013 (One day)
10.	Organic Electronic Materials & Devices	N.I.T.K Surathkal.	19-12-2013 (Three days)
11.	ARM Made Easy	K.V.G. College of Engineering, Sullia	05-05-2015
12.	Experiential Learning Through Virtual Lab	K.V.G. College of Engineering, Sullia	18-04-2018 (One day)
13.	Machine Learning & its Applications in Engineering & Technology	NMAMIT Nitte	02-01-2018 (Five days)

• No. of Project Guided

UG	PG
34	8

• Responsibilities Taken in College Level

Event	Positions	Duration	
		From	To
Centralized Internal Assessment Test	Coordinator	02-02-2009	14-10-2018
Centralized Internal Assessment Test	Chief Coordinator	15-10-2019	Till date
University Examination Cell	Chairman	15-10-2019	Till date
Library stock verification	Chairman	2012	2014
Technical Fest (VSION & THANTRAJNA -13)	Treasurer	05-08-2012	06-09-2013
Alumni Association, Sullia Chapter	Member	17-03-2010	12-02-2013
NBA	Coordinator for Criteria -3	2018	Till date

• Responsibilities Taken in Department Level

Event	Role	Duration	
		From	To
1. Electrical Engineering Association	Treasurer	18-02-2002	31-07-2011
2. Electrical Engineering Association	Staff Advisor	23-03-2001	18-08-2004
3. Student Counselling	Co-ordinator	19-08-2009	02-08-2012
4. Project work (UG)	Co-ordinator	01-08-2011	09-05-2013
5. Time Table	Co-ordinator	01-03-2012	04-12-2014
6. Microcontroller Lab	In- charge	01-03-2012	01-04-2013
7. NBA Criteria - VIII	In- charge	01-03-2012	01-05-2018
8. Career Guidance	Co-ordinator	01-03-2012	01-03-2014
9. U. G Project Review Committee	Member	02-03-2014	01-05-2018
10. Academic Audit Committee	Member	02-03-2014	Till date

• Participation details in the college level event.

SL .No.	Event	Position / Role
1.	Faculty development program under ISTE chapter -2011	Resource Person
2.	Alumni meet conducted by Sullia Chapter - 2015	Organizing committee member
3.	e-induction -2012 (State level project exhibition)	Judge
4.	Annual day celebration committee	Member
5.	Rastriya Avishkaara Abhiyana, for Primary School Students - 2016	Resource Person
6.	e-induction (e-Yojana) -2016	Judge
7.	Technical Talk on Arduino Programming, Under EDC-2018	Resource Person
8.	College Anti-ragging committee	Member-Chairman
9.	Project Exhibition "EXPO"	Member

10.	Infosys foundation program	Member
• Participation details in the Department level activities		
SL .No.	Event	Role / Responsibilities
1.	E-induction-09, A state level Paper presentation competition.	Co-ordinator
2.	Vidyut vyuha-10, A state level Troubleshoot competition.	Judge
3.	e-Chethana- 17, A State level Technical Quiz	Judge
4.	e-Samalochana-18, A National Level Paper Presentation	Judge
5.	Counselling	Counselor for EC Students & Other dept. activities
6.	Mentor	Mini-project work 5 th semester Students

• No. of Lab Manual / Program Guidelines Prepared			
SL. No.	Lab manual / Guide lines Title	Semester and branch	Year
1.	PSPICE Lab Manual	4 th E&E	2002
2.	Transformers & Induction Machines Lab Manual	6 th E&E	2002
3.	Digital Electronics Circuits Lab Manual	3 rd E&E	2003
4.	Circuit Simulation & Measurements	6 th E&E	2004
5.	Logic design Lab	3 rd E&E	2007
6.	Microcontrollers Lab	4 th E&E	2008
7.	Microcontrollers Lab	4 th E&C	2010
8.	Digital Electronics Lab	3 rd E&C	2018
9.	A Practical Course on Arduino Microcontroller	5 th E&C	2019

• No. of Labs handled for UG and PG

SL. No.	Lab Title	Year	Semester & Branch
1.	DC and Synchronous Machines Lab	2000, 2001, 2005	5 th E&EE
2.	Transformers & Induction Machines Lab	2001, 2002, 2004	6 th E&EE
3.	Circuits simulation & Measurements Lab	2003, 2004, 2007	6 th E&EE
4.	Control System Lab	2006, 2007, 2008	6 th E&EE
5.	Microcontrollers Lab	2007, 2008, 2009	4 th E&EE
6.	Logic Design Lab	2007, 2008, 2009	3 rd E&EE
7.	Analog Electronics Lab	2007, 2008,2010	5 th E&EE
8.	Power Electronics Lab	2007, 2008	6 th E&EE
9.	Microcontrollers Lab	2011, 12,13,14,15	4 th E&C
10.	Analog Electronics Lab	2013	3 rd E&C
11.	Digital Signal Processing Lab.	2011,12,13,14,15,16, 17,18	5 th E&C
12.	Microprocessor Lab	2016, 17	6 th E&C
13.	Microprocessor Lab	2018	4 th E&C
14.	Digital Electronics Lab	2018	3 rd E&C
15.	Arduino Lab (Add on Course)	2019	5 th E&C
16.	IOT and Machine Learning Lab	2021	7 th E&C

• Interaction with Outside World / Invited Lectures

Sl.No.	Program	Venue and Organizer	Date
1.	Served as Presiding Officer in Parliamentary Constituency and Assembly Constituency Elections	Belthangady	26 th March 2004
2.	Instructor for 'Student Internet World Program'.	KVGCE, Govt. of Karnataka	26 th to 29 th Oct 2005 (4 days)
3.	Judge for Project Exhibition Tech Nidarshan-10	NMAMIT Nitte	12 th Nov 2010
4.	A technical talk on Electronics for SSLC students	GHS Yenmur	24 th & 25 th Sept 2011

			(2 days)
5.	Judge for Avishkaar- a Project expo	Canara Engineering College, Mangalore	24 th April 2014
6.	Judge for Project exhibition	Canara Engineering College, Mangalore	30 th April 2016
7.	Judge for Project exhibition	Srinivas University, Mukka, Mangalore	16 th May 2018
8.	Resource person for Meditation Program	Nehru Memorial PU College Sullia	9 th May to 11 th May 2019 (3 days)

• Awards / Recognition / Achievements/ Others

- Secured **3rd Rank** in V.T.U M.Tech. Examination under Digital Electronics and Communication, in 2007.
- Awarded with **Dr. K.V.G Meritorious Gold Medal** for the excellence in M. Tech Program (2007).
- Served as **External Deputy Chief Superintendent** and **Squad member** in VTU examination Work.

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